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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,856	11/19/2003	Eric Mies	VS998-6	9502

7590 09/27/2004

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EXAMINER
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HOFFMANN, JOHN M

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/717,856

Applicant(s)

MICS ET AL.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement filed 2-16-2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Only a few pages of each publication were provided. The list indicates that the entire journal volume is to part of the IDS. Alternatively, the list of documents is incomplete/inaccurate.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 11-13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Okude 5732170.

The paragraph starting at col. 11, line 54 discloses the heating an end of a fiber by heating to 1800 C so as to expand the mode-field diameter.

Claim 2 is met because any fiber can be used to compensate a fiber of opposite dispersion. Given two fibers A and B with opposite dispersions, one can consider A to

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compensate for B, and like wise that B can compensate for A. It is all a matter of the use of the fiber, not the fiber itself. The use of the fiber is not presently claimed.

Claim 3: 100 sec is within the time range.

Claim 5 is met because it merely refers to an intended use – there is no actual requirement of creating a spice.

Claim 11 is clearly met – see figure 2C and the Abstract for example

Claims 12-13 are met for the reasons given above.

Claim 15: it is deemed that claim 15 is directed to an intended second optical fiber, rather than the second optical fiber of claim 11. Other interpretations are also reasonable – but they would not be the broadest reasonable interpretations.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 14, 16 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okude alone, or in view of O'Toole 6336749.

Okude does not teach 10-30 minutes. O'Toole is cited as showing different sized fibers (figure 6). It would have been obvious to use the Okude process on any sized fiber. It would have been obvious to perform routine experimentation to determine the optimal time for treatment, depending on the fiber diameter, dopant, and temperature.

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One realizes that a larger fiber takes more time for treatment – because the larger the fiber, the further the diffusing dopant needs to travel and the longer it takes. And that different dopants have different coefficients of diffusion and that higher lower temperatures require longer to occur.

Claim 6: Okude does not disclose that the fiber has a 1 mm dimension or a 6 mm dimension. Figure 6 of O'toole shows that to taper the fiber. It would have been obvious to create a taper of 1 mm to 6 mm if one wishes to splice a 1 mm diameter fiber to a 6 mm diameter fiber. Alternatively, to have the core taper from 1 mm to 6 mm if that is the diameter of the fiber cores that one has.

Claim 14 and 16 are similarly met.

Claims 7-10, 17-23 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okude alone, or in view of Ueda 5372623.

Ueda is cited as showing that methanol is a known fuel for treating gas (col. 7, lines 1-4.) It would have been obvious to use methanol or whatever fuel is most economical/practical to use in the Okude process, because such is the mere substitution of one known fuel for another. Alternatively/additionally, it would have been obvious not to use hydrogen, because of the known hazards of using the odorless gas.

It is noted that special results are attributed to the use of methanol. Examiner did not see any evidence of new and unexpected results. Applicant is reminded that a

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showing of unexpected results must be attributed to the entire scope of the claims – and not just a particular embodiment.

Claims 17-23 and 25-27 are similarly met.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okude alone, or in view of Ueda 5372623 and O'Toole 6336749.

See the reasons given above.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Examiner is uncertain what the typographical error in claim 1 is: that the end is heated to “temperatures” that range from 500 to 2000, or if it is heated to a temperature that is with in the 500-2000 C range, or something else. One temperature cannot be from 500 to 2000.

Likewise for the numerical values of the other claims: for example claim 3 it is unclear if the time periods constitute a beginning and ending of the heating – or if they merely refer to any period that is no longer than 40 minutes but no shorter than 1 minute.

The various heating limitations are of confusing antecedent basis. For example in claim 3, it is unclear if the heating limitation is in addition to the heating of claim 1, or if it further limits the heating of claim 1.

Claim 15: it is unclear if the second optical fiber is the same second optical fiber of claim 11. Likewise for the larger mode field diameter.

Claims 13-17: there is confusing antecedent basis for "the fiber" – there are two fibers in independent claim 1 – it is unclear if it must be the fiber of the smaller mode diameter

### ***Conclusion***

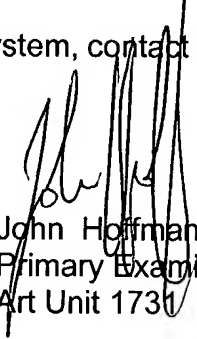
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Both Chandan references, Maher, Dianov, and Mortimore are cited as being related to the disclosed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John Hoffmann  
Primary Examiner  
Art Unit 1731

9-13-04

jmh